EXECUTIVE SUMMARY

In August 1999, the U.S. Forest Service published *Roads Analysis: Informing Decisions about Managing the National Forest Transportation System* (USDA FS-643), to assist individual National Forests in evaluating their road systems in response to changing management priorities, environmental concerns, funding levels, and public needs (USDA FS 1999). The Forest Service Transportation Policy, adopted in 2000, directed National Forests to conduct a roads analysis when it is likely that road management decisions could affect access or produce negative environmental effects (USDA FS Roads Analysis Info Sheet 2002). Furthermore, every National Forest System administrative unit must have a forest-scale analysis completed by January 13, 2003 (FSM 7712.15).

The focus of this roads analysis is the primary transportation system within the Chequamegon-Nicolet National Forest (CNNF), which includes all Forest Service defined Maintenance Level 3, 4, and 5 roads drivable by passenger cars. Analysis of lower level, local roads (Maintenance Levels 1 and 2) will occur on a project-level basis. The roads analysis is intended to be a scientifically-based planning document that reflects an assessment of present road conditions, road-related issues, access needs, environmental impacts, and road costs versus benefits. This document will help the Forest Service prioritize roads and forest areas that need further analysis and management in the future. The roads analysis is not meant to be a decision-making document.

This roads analysis provides a physical, biological, social, cultural, and economic description of the existing CNNF road system. Several issues related to current Maintenance Level 3, 4, and 5 roads within the CNNF have been identified: public, private and administrative access provided by roads; effects of roads on the aquatic environment and water quality; role of roads in proliferation of non-native invasive species; effects of roads on threatened, endangered and sensitive (TES) plant and animal species; and the maintenance cost and environmental effects of placing roadways on slopes. These issues are addressed both scientifically and quantitatively in a Geographic Information Systems (GIS) based analysis. The roads analysis also addresses many other road-related issues pertaining to the CNNF. The results of the GIS analysis are then used to assess the primary benefits, problems, and risks associated with forest roads, and to identify opportunities and priorities for future management of the primary transportation system within the CNNF.

Although the scope of this roads analysis includes the entire CNNF, in some cases, this analysis extends beyond the administrative borders of the forest. This analysis was extended to these areas because discussion of social, economic, and cultural issues often refers to county boundaries, information regarding water quality is provided within watershed boundaries, and analysis of biological issues is often at a landscape or regional scale that covers multiple counties and ecological subsections.